



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/472,876	06/07/95	GARCIA	A TRD-001-IA

26M1/0724
KILLWORTH GOTTMAN HAGAN & SCHAEFE
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EXAMINER

MEI, X

ART UNIT PAPER NUMBER

2605

DATE MAILED: 07/24/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/472,876

Applicant(s)
Garcia et al.

Examiner
Xu Mei

Group Art Unit
2605



☒ Responsive to communication(s) filed on Apr 25, 1997

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2, 5, 9, 14, 15, 17, 18, 24, 28, 29, 31, 33-35, and 37-42 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2, 5, 9, 14, 15, 17, 18, 24, 28, 29, 31, 33-35, and 37-42 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2605

1. This communication is responsive to the applicant's amendment dated 04/25/1997.

2. The amendment filed 04/25/1997 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the Detailed Description of the Invention on pages 3-4 still contain new matter 'a square wave audio signal'. The declarations under 37 CFR 1.132 filed 04/25/1997 is insufficient to overcome the objection to the disclosure based upon 35 U.S.C. 132 as set forth in the last Office action because: the new matter 'a square wave audio signal' and Exhibits A & B filed 04/25/1997 were never disclosed in the original disclosure.

Applicant is required to cancel the new matter in the response to this Office action.

3. Claims 2, 5, 9, 14-15, 17-18, 24, 28-29, 31, 33-35 and 37-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the inventions.

Art Unit: 2605

Regarding claims 31, 33, 35, 37 and 40, phrase 'a circuit operatively adapted such that when an input signal is distorted and further distorted.....toward high end' (claims 31, 35, 40); and 'said circuit is *further* operatively adapted...further distorted...at a low frequency' (claims 35, 37) are indefinite. It is unclear how 'the frequency band is distorted and further distorted in order to *increase* the amplitude of the input audio signal as per increasing frequencies from a reference frequency up to an amplitude peak at a high frequency end, *after the high frequency, decrease* in amplitude as per increasing frequencies toward the high end' and what is considered as 'an improved harmonic quality' when compared to that of the input audio signal. It should be defined with greater specificity.

4. Claims 33-34, 42 and 37 are too indefinite to examine against art at this time.

5. The following art rejections are applied from what is best understood of the claims in view of the 112 first and second paragraph problems listed above.

Art Unit: 2605

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 31, 41, 35, 40, 29, 14-15, 17-18 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gauthier et al. (US Patent 5,537,477, hereafter, Gauthier'477).

Regarding claims 31, 41, 35 and 40, Gauthier'477 teaches an apparatus for enhancing the quality of an input audio signal having a band of frequencies with a high end and a low end (the input audio signal 10 in Fig. 1 by Gauthier'477 clearly shown the with a band of frequencies, i.e., the plurality of filters used to divide the input audio signal, and each of the frequency bands have a high end and a low end), a circuit (attenuator 14 and 22) operatively adapted such that when an input audio signal having a frequency band with a high end and low end is transmitted therethrough, the amplitude of the input signal is distorted and individually controlled (increase) whereby an enhanced audio signal is produced that exhibits an improved harmonic quality compared to that of the input audio signal. Gauthier'477 doesn't

Art Unit: 2605

explicitly teach the amplitude controlled by the circuit/attenuator 14 or 22 with a reference frequency up to an amplitude peak at a high frequency.

Gauthier'477 teaches the circuit has an *individual selectable gain for individually controlling the amplitude* of the components of the audio signal individually passed by the associated BPF (see Col. 4, lines 4-10 and Col. 5, lines 24-36). It would have been obvious to one of ordinary skill in the art to *select* a desired amplitude control of the audio band signals such as having a reference frequency/amplitude point in order to develop desired frequency characteristic of the audio apparatus taught by Gauthier'477.

Regarding claims 14 and 39, the output signals taught by Gauthier'477 is clearly being processed into an audible signal.

Regarding claim 29, the input signal is clearly an audio signal enhanced by the circuit of Fig. 1 taught by Gauthier'477.

Regarding claims 15, 17-18 and 38, the Examiner takes Office Notice that such features of recording audio signals with magnetic recording medium or optical recording medium for later playback is old and well known in the audio art. Therefore, it would have been obvious to one of ordinary skill in the art to use a well known magnetic recording medium or optical recording

Art Unit: 2605

medium to record the enhanced audio output signals of Gauthier'477 for later playback.

8. Claims 24, 2, 5, 9 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Velmer and Op de Beek et al. teach frequency control circuits for processing audio signal.

10. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE

Art Unit: 2605

STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

11. Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications; please mark
"EXPEDITED PROCEDURE")

Or:

(703) 305-9508 (for informal or draft communications, please
label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xu Mei whose telephone number is (703) 308-6610.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Xm
xm

07/18/1997

CMJ
CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
GROUP 2600